

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 06-285496

(43)Date of publication of application : 11.10.1994

(51)Int.Cl.

C02F 9/00
C02F 1/44
C02F 3/08
C02F 3/10
C02F 3/20

(21)Application number : 05-103751

(71)Applicant : EBARA INFILCO CO LTD

EBARA RES CO LTD

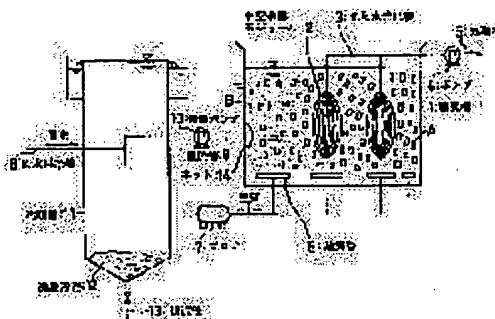
(22)Date of filing : 07.04.1993

(72)Inventor : KATAOKA KATSUYUKI

(54) HOLLOW FIBER MEMBRANE SEPARATION BIOLOGICAL TREATMENT AND DEVICE FOR ORGANIC DRAINAGE

(57)Abstract:

PURPOSE: To prevent the adhesion and solidification and press densification of sludge to membrane, keep the surface clean at all times and eliminate the necessity of maintenance work by coexisting biological granular solids in an aeration tank, keeping the solids in the suspension flowing state by aeration and discharging treated water through a hollow fiber membrane.



CONSTITUTION: In the hollow fiber membrane separation biological treatment method, urethane foam square grains A, the gravity of which is almost equal to that of water, are fed into an aeration tank 1, and microbes such as BOD utilized bacteria are carried on microbe carriers composed of the grains A. Also water to be treated in the tank 1 is disturbed by diffused air exhausted from an air blower 7 through an air diffusion pipe 6, and the grains A are suspension flowed by the turbulence generated by the diffused air. A membrane module 2 fitted with hollow fiber membrane is immersed in the tank 1, and the water treated biologically in the tank 1 is sucked by a pump 4, passed through the membrane module 2, filtered by the hollow fiber membrane fitted thereon and flowed out of a treated water outflow pipe 3 in the

form of cleaing treated water 5 completely free from SS.

LEGAL STATUS

[Date of request for examination] 07.12.1999

[Date of sending the examiner's decision of rejection] 14.11.2001

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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(19)

(11) Publication number:

06285

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PATENT ABSTRACTS OF JAPAN(21) Application number: **05103751**(51) Int'l. Cl.: C02F 9/00 C02F 1/44 C02F 3/08 C0
C02F 3/20(22) Application date: **07.04.93**

(30) Priority:

(43) Date of application
publication: **11.10.94**(84) Designated contracting
states:(71) Applicant: **EBARA INFILCO CO LTD**
EBARA RES CO LTD(72) Inventor: **KATAOKA KATSUYUKI**

(74) Representative:

**(54) HOLLOW FIBER
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【図2】本発明の生物処理に使用する粒状微生物担体の

1例を示す斜視図。

【符号の説明】

- 1 噴気槽
- 2 中空糸膜モジュール
- 3 処理水流出管
- 4 ポンプ
- 5 処理水
- 6 給気管
- 7 空気源 (プロワー)

8 原水供給管

9 被処理水導流管

10 送流ポンプ

11 沈殿槽

12 沈殿汚泥

13 排泥管

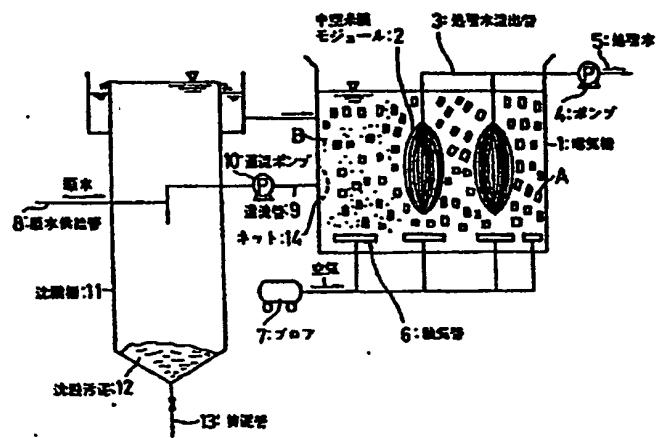
14 ネット

A ウレタンフォーム角状粒状物

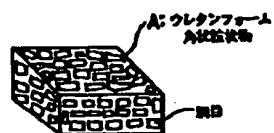
B 浮遊微生物

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【図1】



【図2】



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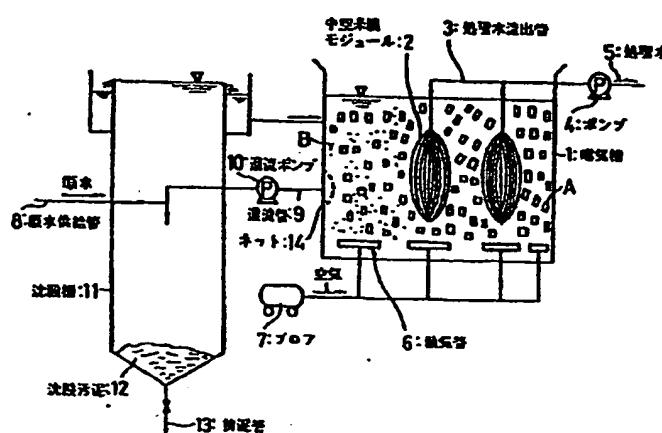
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- 7 空気源 (プロワー)

- 8 原水供給管
 - 9 被処理水還流管
 - 10 逆流ポンプ
 - 11 沈殿槽
 - 12 沈殿汚泥
 - 13 排泥管
 - 14 ネット
- A ウレタンフォーム角状粒状物
B 浮遊性生物

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【図1】



【図2】



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